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THE INDUSTRIAL ARTS INDEX

FIRST ANNUAL CUMULATION

SUBJECT INDEX TO A SELECTED LIST OF
ENGINEERING AND TRADE PERIODICALS
FOR 1913

EDITED BY

MARION E. POTTER AND LOUISE D. TEICH

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With this issue the *Industrial Arts Index* completes its first volume. The removal of the publishers from Minneapolis to White Plains prevented the publication of a number in December. The present issue however, is a complete index for 1913 of the magazines listed on the following page. Numbers one and two of volume two will be published as a double number in April and the publishers hope to resume thereafter the regular schedule.

The four numbers thus far published have been in the nature of an experiment. The list of periodicals is still far from complete, and the method of indexing will no doubt need modification as the work is enlarged. Suggestions will be welcome both as to the list of magazines and the improvement of the indexing. Ice and Refrigeration, The Proceedings of the American Society of Civil Engineers', the Electrical Journal, and American Machinist do not appear on the list as the publishers have not yet sent us copies for indexing. The Textile World Record, General Electrical Review, Journal of American Institute of Architects, American Gas Light Journal have been chosen as the next additions, while the indexing of Horseless Age and Electrical Review and Western Electrician which was necessarily omitted from this volume, will be carried back to the beginning of 1913.

One of the difficulties of indexing engineering magazines is to indicate the fact that certain articles appear in more or less similar form in several different periodicals. As the titles of these articles usually vary, it takes a good deal of time to establish their identity or partial identity. This happens frequently in the case of reports or abstracts of papers presented before engineering or trade societies. The original paper may be published in one magazine, a portion of it in another, reasonably full abstracts in a third, and perhaps a brief summary in a fourth. An expression of opinion is very much desired as to the importance of indicating the relationship of these articles to one another. Should they be combined in one entry under one title,

with some abbreviation or symbol to show the relationship e. g., "Same cond." or "excerpts," or might they be entered separately each under its own title and the time thus saved be spent more profitably in improvements in other directions?

Miss Louise Teich has edited copy and read the final proof of this index. Credit is due also to Mrs. Nellie Shimer for valuable assistance.

The American Institute of Mining Engineers publishes an index to volumes 36 to 40 of its Transactions, covering the years 1905 to 1909. This index supplements the "General Alphabetical and Analytical Index" of volumes 1 to 35. A new arrangement of material under group headings is introduced.

The American Society for Testing Materials has published an index to the first twelve volumes of the Proceedings of the society. Volume 1 contains the index to the twenty-eight bulletins that were issued at irregular intervals from 1898 to 1902. Volume 2 contains the index to the annual volumes which have been issued since that date, including the volume for 1913. A table of contents giving the contents for each individual volume follows the index proper.

The "Index to Transactions of the American Institute of Electrical Engineers" in two volumes has been issued by that society. "This index consists of two separate parts, each intended for a distinct purpose. First. There is an index of papers in which they are classified in natural groups and arranged chronologically in each group. Second. There is an index to specific data and information arranged alphabetically. The index of papers is intended for searchers desiring to locate papers on a given subject, and to aid in this search the papers have been characterized. These characterizations are not intended to be abstracts of the papers, but rather to give the scope and nature of their contents. . . . The index to specific data and information is intended for searchers desiring to make a complete study of the subject as presented in the Transactions. There is a great mass of valuable information hidden in discussions which has no very direct connection with the subject of the paper. This data can be found only by reference to such a topical index." (Introduction) Volume 1 covers the period from 1884 to 1900 inclusive; volume 2, from 1901 to 1910 inclusive.

List of Periodicals Indexed

Am Eng—American Engineer. See **Ry Age** (Mech ed.).

Am Ind—American Industries. \$1; single numbers 10c. National Manufacturers Co., 30 Church St, New York.

Am Inst E E Pro—American Institute of Electrical Engineers. Proceedings. \$10; single numbers \$1. F. L. Hutchinson, sec., 33 W. 39th St, New York.

Am Inst Min E Bul—American Institute of Mining Engineers. Bulletin. subs. \$10; to members, public libraries, and educational institutions, \$5. Joseph Struthers, sec., 29 W. 39th St, New York.

Am Mach—American Machinist. \$4; single * numbers 15c. Hill Pub. Co., 505 Pearl St, New York.

Am Soc M E J—Journal of the American Society of Mechanical Engineers. \$3; single numbers 35c. American Society of Mechanical Engineers, 29 W. 39th St, N. Y.

Arch & Bldg—Architecture and Building. \$2; single numbers 20c. William T. Comstock Co., 23 Warren St, New York.

Arch Rec—Architectural Record. \$3; single numbers 35c. Architectural Record Co., 119 W. 40th St, New York.

Automobile—Automobile. \$3; single numbers 20c. Class Journal Co., 231 W. 39th St, New York.

Brickb—Brickbuilder. \$5. Rogers & Manson, 85 † Water St, Boston.

Colliery—Colliery Engineer. \$2; single numbers 25c. International Textbook Co., Scranton, Pa. Formerly Mines and Minerals.

Concrete Cem—Concrete-Cement Age. \$1.50; single numbers 15c. Concrete-Cement Age Pub. Co., 97 West Fort St, Detroit, Mich.

Dom Eng—Domestic Engineering. \$2; single numbers 10c. Domestic Engineering Co., 445-447 Plymouth Court, Chicago.

Elec Ry J—Electric Railway Journal. \$3; single numbers 10c. McGraw Pub. Co., 239 W. 39th St, New York.

Elec R & W Elec'n—Electrical Review and * Western Electrician. \$3; single numbers 10c. Electrical Review Pub. Co., 608 S Dearborn St, Chicago.

Elec W—Electrical World. \$3; single numbers 10c. McGraw Pub. Co., 239 W. 39th St, New York.

Eng & Min J—Engineering and Mining Journal. \$5; single numbers 15c. Hill Pub. Co., 505 Pearl St, New York.

Eng M—Engineering Magazine. \$3; single numbers 25c. Engineering Magazine Co., 140 Nassau St, New York.

Eng N—Engineering News. \$5; single numbers 15c. Hill Pub. Co., 505 Pearl St, New York.

Eng Rec—Engineering Record. \$3; single numbers 10c. McGraw Pub. Co., 239 W. 39th St, New York.

Foundry—Foundry. \$1; single numbers 15c. The Foundry, Cleveland, O.

Heat & Ven—Heating and Ventilating Magazine. \$1; single numbers 10c. Heating & Ventilating Magazine Co., 1123 Broadway, New York.

Horseless Age—Horseless Age. \$2. Horseless Age Co., 250 W. 54th St, N. Y.

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin. Univ. of Ill., Urbana.

Ind Eng—Industrial Engineering and Engineering Digest. \$2; single numbers 20c. Technical Literature Co., 120 W. 32d St, New York.

Inland Ptr—Inland Printer. \$3; single numbers 30c. Inland Printer Co., 624 Sherman St, Chicago.

Int Marine Eng—International Marine Engineering. \$2. Aldrich Pub. Co., 17 Battery Place, New York.

Iron Age—Iron Age. \$5; single numbers 20c. David Williams Co., 239 W. 39th St, New York.

Iron Tr R—Iron Trade Review. \$4; single numbers 15c. Penton Pub. Co., Penton Bldg., Cleveland, O.

J Account—Journal of Accountancy. \$3; single numbers 30c. Ronald Press Co., Coopers-town, N. Y.

J Fr Inst—Journal of the Franklin Institute. \$5; single numbers 50c. Franklin Institute, Philadelphia.

J Ind & Eng Chem—Journal of Industrial and Engineering Chemistry. \$6. American Chemical Society, Easton, Pa.

Locomotive—Locomotive. 50c; single numbers gratis; recent bound volumes \$1. Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.

Mach—Machinery. Engineering edition \$2; coated pa. \$2.50. Industrial Press, 110 Lafayette St, New York.

Met & Chem Eng—Metallurgical and Chemical Engineering. \$2; single numbers 25c. McGraw Pub. Co., 239 W. 39th St, New York.

Metal Ind n s—Metal Industry new series. \$1; single numbers 10c. Metal Industry, 99 John St, New York.

Mines & Min—Mines and Minerals. See Colliery.

Munic Eng—Municipal Engineering. \$2; single numbers 25c. Engineering Pub. Co., Indianapolis, Ind.

Power—Power. \$2; single numbers 5c. Hill Pub. Co., 505 Pearl St, New York.

Ry Age—Railway Age Gazette. \$5; single numbers 15c. Simmons-Boardman Pub. Co., Woolworth Bldg., New York.

Ry Age (Mech ed)—Railway Age Gazette, mechanical edition including the American Engineer. \$2; single numbers 20c. Simmons-Boardman Pub. Co., Woolworth Bldg., New York.

Ry & Eng R—Railway and Engineering Review. \$4; single numbers 15c. Railway Review, 1407 Ellsworth Bldg, Chicago.

Continued as Railway Review.

Sci Am—Scientific American. \$3; single numbers 10c. Munn & Co., 361 Broadway, New York.

Sci Am S—Scientific American Supplement. \$5; single numbers 10c. Munn & Co., 361 Broadway, New York.

Stevens Ind—Stevens Indicator. \$1.50; single numbers 50c. Stevens Institute of Technology, Hoboken, N. J.

U S Agric Bul—United States Dept. of Agriculture. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

U S Bur Chem Bul—United States Bureau of Chemistry. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

U S Bur Stand Bul—Bulletin of the United States Bureau of Standards. quarterly, \$1. Superintendent of Documents, Union Bldg., Washington, D. C.

U S Forest Serv Bul—United States Forest Service. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

Included, after bulletin 166, in the Bulletins of the United States Dept. of Agriculture.

U S Pub Road Bul—United States Office of Public Roads. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

Included, after bulletin 48, in the Bulletins of the United States Dept. of Agriculture.

* A few numbers only are indexed

‡ Periodicals elected but not yet indexed

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Ability tests

Are men better typists than women? scientific tests made by J. M. Lathay, J. Boyer. *il Sci Am* 109:316 O 25 '13

Mental tests to grade pupils at school. *Sci Am* S 75:87 F 8 '13

Psychological tests of motormen. *Elec Ry J* 42:66-7 Jl 12 '13

Scientific selection of workmen. *Eng Rec* 67:171 F 15 '13

See also Efficiency, Industrial

Abrasives

Carborundum and alundum: a comparison with emery. S. A. Cochell. *Metal Ind* n 8 11:249-50 Je '13

See also Emery wheels; Grinding and polishing

Absecon inlet

Channel- and beach-maintenance problem at Atlantic City. R. R. Raymond. map *Eng N* 70:150-4 Jl 24 '13

Proposed improvement of an ocean bar at Atlantic City. N. J. L. M. Haupt. *Eng N* 70: 523-4 S 11 '13

Absorption of light

Absorption of light in space. E: S. King. *il Sci Am* S 75:171 Mr 15 '13

Absorption spectra. See Spectra—Absorption spectra

Absorption system. See Refrigeration and refrigerating machinery

Absorption towers

Absorption and reaction towers for chemical factories. *diags Met & Chem Eng* 11:359-61 Je '13

Abu, Mount

Temples of Dilwara on Mount Abu. T. G. Dalal. *il Sci Am* S 76:200-1 S 27 '13

Abutments. See Bridges—Abutments

Acacias

Economic study of acacias. C: H. Shinn. *il U S Agric Bul* 9:1-38 '13

Academic efficiency. W: Kent. Stevens *Ind* 30: 20-36 Ja '13

Accelerometer

Detecting resistance—saving fuel. W. C. Marshall. *il Automobile* 28:833-5, 888-90, 937-9, 978-9 Ap 17-My 8 '13

Tester uses accelerometer on trucks. *Automobile* 29:200-3 Jl 31 '13

Accident law. See Negligence; Personal injuries; Workmen's compensation

Accident prevention. See Safety devices and measures

Accidents

Few miscellaneous accidents. *Sci Am* S 76: 407 D 27 '13

Prevention of elevator accidents. R. P. Bolton. *Ind Eng* 13:251-3 Je '13

See also Automobiles—Accidents; Aviation—Accidents; Building failures; Collisions at sea; Derailments; Life saving; Railroads—Accidents; Safety devices and measures; Shipwrecks; Street accidents; Street railroads—Accidents

Accidents, Industrial

Accident prevention. J. B. Douglas. *il Sci Am* S 76:222-4 O 11 '13

Accident prevention at Rochester, N. Y. *il Am Ind* 13:24-7 Ap '13

Accident prevention in construction work. *Sci Am* S 75:362-3 Je 7 '13

Accidents, Industrial—Continued.

Accidents in iron and steel mills: comparison for the United States and Germany. *Iron Age* 92:425 Ag 21 '13

Accidents on Catskill aqueduct. *Eng Rec* 67: 320 Mr 22 '13

Conservation of the worker. A. Cotter. *il Eng M* 45:489-505 Jl '13

Industrial accident costs in Massachusetts. *Eng Rec* 67:338-9 Mr 23 '13

Lessons of a power plant accident. H. S. Knowlton. *Power* 37:49-50 Ja 14 '13

Luck, law and industrial accidents discussed. W: H. Doolittle. *Iron Tr R* 52:921-2 Ap 17 '13; same cond. *Iron Age* 91:945-6 Ap 17 '13

Metal-mining accidents; Catskill aqueduct accidents. *Eng & Min J* 95:1009-10 My 17 '13

Museums of safety and their activities: a brief history of movement for prevention of industrial accidents. M. S. Hutton. *Mach 19:31-3 S '12*

Ordinary precautions in construction work. *Eng Rec* 67:433-4 Ap 19 '13

Practical work in industrial advancement. *Am Ind* 13:12-5 Jl '13

Prevention of accidents in central stations. *il Elec W* 61:986-9 My 10 '13

Prevention of accidents in factories. *il Sci Am* S 76:212-4 O 4 '13

Prevention of disease versus cost of living. T: F. Harrington. *Sci Am* S 75:402-3 Je 28 '13

Recording memoranda on accident prevention. T: D. West. *Am Ind* 14:19-20 D '13

Relative vocational hazards. H. Davis. *Colliery* 33:485-6 Ap '13

Safety engineering should form part of every engineering course. G. Gilmour. *il Sci Am* S 76:36-9 Jl 19 '13

Sanitation and safety in heavy-chemical production. F. D. Patterson. *il Am Ind* 13:28-31 Mr '13

Taking chances on a sewer trench. *il Munic Eng* 44:184-5 Mr '13

Three years of accident prevention: results of Eastman Kodak Co. *il Iron Age* 91:1058-61 My 1 '13

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Account analysis

Account analysis in commercial banks. H. C. Thompson. *J Account* 16:210-29 S '13

Accountants

Accounting charges. F: G: Colley. *J Account* 15:245-7 Ap '13

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Charlatanism in the profession of accountancy. C. V. Rowe. *J Account* 16:301-5 O '13

Co-operation between bankers and accountants. *J Account* 16:51-3 Jl '13

Federal relations: advancement and regulations of the profession. J: A. Cooper. *J Account* 15:1-9 Ja '13

Mission of the public accountant. F. B. Sears. *J Account* 16:291-300 O '13

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Vermont C. P. A. law. *J Account* 16:408-9 N '13

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Accounting methods. *Elec W* 61:1235-8 Je 7 '13
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Accounting system for a municipal hospital. D. C. Eggleston. *J Account* 16:366-70 N '13
Accounting system for electric companies. L. W. Allison. *Power* 38:697-700 N 11 '13
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Apportionment of profits of building and loan associations. G: G. Scott. *J Account* 16: 350-7 N '13
Assessments on stock of corporations organized under the laws of California. *J Account* 15:117-21 F '13
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Measuring efficiency on a profit basis. E: B. Passano. *Iron Tr R* 52:682-4 Mr 20 '13
Practical principles of rational management. A. H. Church. *Eng M* 45:166-73 My '13
Some essentials of public service accounting. A. F. Elkins. *Elec Ry* 42:1276 D 20 '13
Supply jobbers' convention considers accounting. *Elec W* 62:1037-8 N 22 '13
Trade union accounting. A. E. Carpenter. *J Account* 16:440-2 D '13
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Ability of the acetylene flame. E. M. Chance. *Colliery* 34:239-41 N '13

Acetylene lamps in coal mines. *Colliery* 34: 49-51 Ag '13

Acetylene lighting system defended. R. H. Coombs. *Automobile* 29:514-5 S 18 '13

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Acetylene-electric flame. C. F. Lorenz. *il Elec W* 61:511-5 Mr 8 '13

Acetylene for lighthouses, buoys, etc.

Marine lighting equipment of the Panama canal. J. Pattison. *diags Eng* N 69:1057-9 My 22 '13

Acid-proofing the floors of battery rooms. plan *Met & Chem Eng* 11:56 Ja '13

Acid waste

Disposal of acid waste in schools. J. Graham. *diags Dom Eng* 63:212-4 My 24 '13

Acidimetry

Benzoic acid as an acidimetric standard. G: W. Morey. *U S Bur Stand Bul* 8:643-50 Mr 1 '13

Acids

Manufacture of chemically pure acids; problems encountered. J. T. Baker. *il Sci Am* S 75:94-6 F S '13

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Acorns

Acorns and their uses. *il Sci Am* 108:248 Mr 15 '13

Acoustics, Architectural

Air currents and their relation to the acoustical properties of auditoriums. F. R. Watson. *Eng Rec* 67:265-8 Mr 8 '13

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Adding typewriters

Frame work on an adding typewriter. R. Rawson. *il Am Mach* 38:847-50 My 22 '13

Adobe bricks

Strength of adobe brick. *Eng & Min J* 96:1074 D 6 '13

Advertising

Advertising for the printer. C: W. Hoyt. *Inland Ptr* 50:525-7 Ja '13

Advertising in printing trade. M. Gross. *Inland Ptr* 50:524-5 Ja '13

Advertising printing—a profitable field. E. R. Roeder. *Inland Ptr* 52: 381-2 D '13

Cost of advertising in country daily and weekly newspapers. E. K. Whiting. *Inland Ptr* 51:718-20 Ag '13

Higher advertising rates for country papers. *Inland Ptr* 51:557-9 Jl '13

How shall we make advertising effective? J: K. Allen. *Dom Eng* 64:341-2 S 20 '13

It pays to advertise. A. G. Brenton. *Inland Ptr* 50:843-5 Mr '13

Newspaper work. O. F. Byxbee. See monthly numbers of the Inland printer

Printers' advertising. W. H. Wright. *Inland Ptr* 51:838-40 S '13

Publicity for plumbers. *Dom Eng* 62:311-2 Mr 15 '13

Reaching the public through printing. W: T. O'Donnell. *Inland Ptr* 51:406-8 Je '13

Securing business by a house organ. C: W. Hoyt. *Inland Ptr* 51:682-4 Ag '13

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Sliding scale of advertising costs. J. C. Morrison. Inland Ptr 52:433-6 D '13
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Report of the Aera advisory committee. Elec Ry J 42:827-8 O 16 '13

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Aviation to-day: importance of a national aerodynamic laboratory. W. I. Chambers. II Sci Am S 75:121-6 F 22 '13

Langley aerodynamical laboratory. C. H. Butman. Sci Am 108:538 Je 14 '13

National aerodynamic laboratory. Sci Am 108:26 Ja 11 '13

Need for an aerodynamic laboratory in the United States. W. I. Chambers. Eng M 44: 764-7 F '13

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Comparative efficiency of Eiffel surfaces: studies in aeroplane design. R. D. Andrews. Sci Am S 75:307 My 17 '13

Laws of similitude and their application in aeroplane design. L. Bairstow. II Sci Am S 76:109-10 Ag 16 '13

Reflections on aerial flight: fallacy of pendulum stabilizers. H. R. A. Mallock. diag Sci Am S 76:398-400 D 20 '13

Stream lines around obstacles to air currents. II Sci Am S 75:263-9 Ap 26 '13
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Aeronautics in Germany. Sci Am S 75:322-3 My 24 '13

Airhole of landing. E. Heinkel. Am Soc M E J 25:690-1 Ap '13

Airmen and the weather: aeronautic meteorology. C. F. Talman. II Sci Am 109:94 Ag 2 '13

Direction of aerial highways. Sci Am 109:298 O 18 '13

Germany's aeronautical weather bureau. Sci Am 108:262 Mr 22 '13

Measurement of the true static pressure in a moving fluid—application to an aeroplane barograph. A. F. Zahm. J Fr Inst 175:503-9 My '13

Progress in air navigation. J. D. Holmes. Sci Am 109:211 S 13 '13
Recent aviation events. II Sci Am 109:229 S 20 '13

Reflections on aerial flight: fallacy of pendulum stabilizers. H. R. A. Mallock. diag Sci Am S 76:398-400 D 20 '13

Scientific instruments used in aeronautics: devices for determining direction, speed and side-slip of aeroplanes. H. Darwin. II Eng M 45:893-5 S 13 '13

Stability in flying machines. A. A. Merrill. Am Soc M E J 35:1465-78 O '13

Traveling through inter-stellar space: what type of motor would you employ? Sci Am S 75:263 Ap 26 '13

Way stations for a relay flight to Europe. II: II. Suplee. map Sci Am 109:496 D 27 '13

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Coming army aeroplanes. C. H. Claudy. Sci Am 108:127 F 1 '13

Curtiss military biplane. S. Y. Beach. II Sci Am 108:240 Mr 15 '13

Dissecting the military dirigible airship VI. A. Gradenwitz. II Sci Am 109:161 Ag 30 '13

Fighting in the air. C. Dienstbach. Sci Am 109:86 Ag 2 '13

Military supremacy of the air. T. M. R. von Kéler. Sci Am 108:6 Ja 4 '13

Military value of low flying. C. Dienstbach. Sci Am 109:210 S 13 '13

Mining the air with balloon torpedoes. H. Bannerman-Phillips. Sci Am 108:538 Je 11 '13

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Requirements for scout type military aeroplane. Sci Am S 75:156 Mr 8 '13

Sea and air command: Germany's new policy in its relation to the British naval supremacy. II Sci Am S 75:322-5 Je 21 '13

Why we need an aerial navy. Sci Am 108: 330 Ap 12 '13

Work of aircraft in the French maneuvers, 1913. H. Bannerman-Phillips. II map Sci Am 109:322 O 25 '13

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Naval airship. C. Dienstbach. Sci Am 109: 378 N 15 '13

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Aeronautics in Germany. Sci Am S 75:322 My 24 '13

Aeroplane, motor, or aviator? E. L. Ovington. II Eng M 44:339-44 D '12

Data from German aviation motor contest of interest to builders of automobile motors. Automobile 29:716-8, 776-8 O 16-23 '13

Gyroscopic action of gnome engines. J. L. Collan. Sci Am 108:31 Ja 11 '13

Latest motors at the Paris aero show. II Sci Am S 75:21-2 Ja 11 '13

Progress in aeroplane design and aeronautical motors. Mach 19:753-4 Je '13

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See also Axles; Automobiles—Gearing;
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